

LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. No claims have been cancelled, added, or amended.

1. (Previously Presented) A vessel for traveling on water, comprising:
a hull; and

a keel comprising a member depending from the hull, the member comprising two limbs each depending from a respective lateral side of the hull, the two limbs defining at least in part an enclosed flow path extending in a bow-to-stern direction, the enclosed flow path being configured to allow water incident on the vessel to flow over inner and outer surfaces of the two limbs, wherein the two limbs each have a foil surface which is angled to generate in use a component of hydrodynamic force directed away from the enclosed flow path when there is a net flow of water incident in the bow-to-stern direction, the keel being configured to generate when submerged in water a closed loop of hydrodynamic force, all directed away from the enclosed flow path, wherein incident flow passing through the enclosed flow path is decelerated relative to the hull.

2. (Previously Presented) The vessel of claim 1, wherein at least one limb of the two limbs comprises a portion having a symmetrical foil section.

3. (Previously Presented) The vessel of claim 1, wherein at least one limb of the two limbs comprises an asymmetric foil section.

4. (Previously Presented) The vessel of claim 1, wherein the angle of the foil surface of at least one limb of the two limbs is variable.

5. (Previously Presented) The vessel of claim 4, wherein at least one limb of the two limbs is of variable camber.

6. (Previously Presented) The vessel of claim 5, wherein at least one limb of the two limbs comprises a moveable flap.

7. (Previously Presented) The vessel of claim 5, wherein a portion of at least one limb of the two limbs is moveable.

8. (Previously Presented) The vessel of claim 1, wherein the two limbs each comprise a substantially straight portion.

9. (Previously Presented) The vessel of claim 8, wherein the member comprises a pair of substantially straight limbs connected together to form a V-shape as viewed with a portion of the hull completing the loop to form the enclosed flow path.

10. (Previously Presented) The vessel of claim 1, wherein the two limbs are substantially curved.

11. (Previously Presented) The vessel of claim 1, wherein the two limbs are symmetrically disposed on either side of a central, longitudinal axis of the hull.

12. (Previously Presented) The vessel of claim 1, wherein the two limbs are directed inwards toward the hull where they depend from the hull.

13. (Previously Presented) The vessel of claim 12, wherein the two limbs are substantially perpendicular to the hull at the point where they meet the hull.

14. (Previously Presented) The vessel of claim 1, wherein the keel further comprises a ballast portion.

15. (Previously Presented) The vessel of claim 14, wherein the keel comprises a ballast bulb disposed at a lowest part of the keel.

16. (Previously Presented) The vessel of claim 1, wherein at least one limb of the keel has a part having a sharp or small radius leading-edge.

17. (Previously Presented) The vessel of claim 1, wherein at least one limb of the two limbs has a part having a leading edge which is locally swept relative to a central, longitudinal axis of the hull.

18. (Previously Presented) The vessel of claim 17, wherein longitudinal distance between the leading edge of the part and a rearmost part of the hull decreases with increasing distance from the hull.

19. (Previously Presented) The vessel of claim 1, wherein each limb of the two limbs has a lower part which is longitudinally offset relative to an upper part thereof.

20. (Previously Presented) The vessel of claim 19, wherein the lower portion of each limb of the two limbs is offset relative to the upper part towards a rear part of the hull.